DATA SHEET

PRIMERGY TX150 S6

Issue: **March 2009**

Mono socket Quad-Core Intel® Xeon® UP based Tower Server - World class in quality and redundancy

PRIMERGY TX Tower Servers deliver highest reliability rates with proven data center technology comparable with high end UNIX servers. The innovative, broadest portfolio of virtualization, server and solution offerings stand for TCO reductions of 60% or more. Optimized air flow cooling technology assures a long life and highest possible performance/watt at work as well as by far best in class efficiency proven by numerous benchmark records. And as your business grows, plenty of headroom for expansion protects your investments in PRIMERGY as well as our universal tower-to-rack conversion kit does in case of consolidation changes. PRIMERGY ServerView Suite with remote management functions provides comprehensive management from anywhere at any time.
The flexible custom supply model and our build-to-order process mean, that only fully built and pre-tested solutions are shipped to customers. Last but not least Fujitsu Technology Solutions proven commitment to green IT offers clear competitive advantages to our customers.

PRIMERGY TX150 S6

The PRIMERGY TX150 S6 tower server delivers new levels of energy efficient performance with Intel® Xeon® Quad-Core processor 3300 series. This is achieved with up to 1333 MHz FSB clock rate and with Intel's new state-of-the-art multi-core optimized microarchitecture. A server with this processor proves to be a particularly powerful system that can respond quickly to your requirements. Enhance your efficiency when it comes to simultaneous execution of multiple applications and downloading mass data. The processor with the Intel® 3210 chipset also supports virtualization and EM64 technology. This sixth-generation tower server combines high performance with low noise. The 3.5-inch SAS or SATA or 2.5-inch SAS hot-plug hard disks can be replaced easily while the server is in operation. High data security is offered thanks to built-in RAID 1 functionality and an optional ibutton RAID 5 implementation for SATA or a modular RAID for SAS configurations. The standard iRMC S2 (integrated Remote Management Controller) offers enhanced system management and graphics based on IPMI 2.0 technology, and the redundant power supply module further increases operational reliability. Dual-Core Xeon® processors and an even more power saving Celeron® processor round off the offering alternatively.

MAIN FEATURES	BENEFITS
ECC, built-in RAID 1 functionality and optional ibutton RAID 5 for SATA or modular RAID for SAS configurations	High security against physical loss of data
Hot-plug HDD infrastructure (standard), Hot-plug redundant PSU (optional) ServerView Local, Service Panel (LSP) optional for customer`s Service on its own	Tailor made availability, offers the security level which is recommended by your individual application demands
Intel Quad-Core processor, provides four execution cores in one physical processor with less power consumption. Energy efficient Intel Celeron processor even more power saving	Allowing the platform to do more in less time, IT departments can consolidate applications and more effectively employ the server with less power consumption
Up to 4x SATA or 4 (6)x SAS/SATA 3.5-inch, up to 8x 2.5-inch SAS hard disks, 6 PCI/PCIe slots, (5 with SAS), 1x Gbit LAN plus extra Service LAN for iRMC S2	Expandability options for further growth
Universal tower-to-rack conversion kit	Investment protection through optional tower to rack conversion kit

Technical details

PRIMERGY TX150 S6

Housing type					Rack	Rack	Rack	Rack
Hard disk architecture	3.5” SAS/ SATA	3.5” SAS/ SATA	2.5” SAS	2.5” SAS	3.5” SAS/ SATA	3.5” SAS/ SATA	2.5” SAS	2.5” SAS
Power supply	Hotplug	Standard	Hotplug	Standard	Hotplug	Standard	Hotplug	Standard

Mainboard

Mainboard type	D 2559
Chipset	Intel® 3210
Processor quantity and type	1 x Intel® Celeron® processor / Intel® Pentium® Dual-Core processor / Intel® Xeon® processor 3000 sequence
Processor options	Intel® Core™2 Duo E7200 (2C, 2.53 GHz, SLC: 3 MB, 1066 MHz, 65 W) Intel® Pentium® E2200 (2C, 2.20 GHz, SLC: 1 MB, 800 MHz, 65 W) Intel® Xeon® E3110 (2C, 3.00 GHz, SLC: 6 MB, 1333 MHz, 65 W) Intel® Xeon® E3120 (2C, 3.16 GHz, SLC: 6 MB, 1333 MHz, 65 W) Intel® Xeon® L3110 (2C, 3.00 GHz, SLC: 6 MB, 1333 MHz,) Intel® Xeon® X3220 (4C, 2.40 GHz, SLC: 2 x 4 MB, 1066 MHz, 95 W) Intel® Xeon® X3360 (4C, 2.83 GHz, SLC: 2 x 6 MB, 1333 MHz, 95 W) Intel® Xeon® X3370 (4C, 3.00 GHz, SLC: 2 x 6 MB, 1333 MHz, 95 W)
Memory slots	4 (2 banks with 2 slots each)
Memory slot type	PC2-6400 (unbufferd DIMM DDR2 800 ECC)
Memory capacity (min. - max.)	1 GB - 8 GB
Memory Protection	Advanced ECC
Memory notes	Mix and match possible; with dual channel operation better performance (2 modules with equal capacity necessary). Single channel (1 module) configuration possible.
Memory options	2 GB (1 module(s) with 2 GB), DDR2, 800 MHz, PC2-6400 1 GB (1 module(s) with 1 GB), DDR2, 800 MHz, PC2-6400
Upgrade notes	For a memory and processor upgrade a BIOS update may be required.

Interfaces

USB ports	8 x USB 2.0 (1x front, 4x rear, 3x internal)
Graphics (15-pin)	1 x VGA
Serial 1 (9-pin)	1 x serial RS-232-C, usable for iRMC or system or shared
Serial 2 (9-pin)	1 x serial RS-232-C (optional)
Parallel (25-pin)	1 x Centronics 25-pin EPP/ECP compatible (option)
Mouse / Keyboard (PS/2)	2
LAN / Ethernet (RJ-45)	1 x Gbit/s Ethernet
Service LAN (RJ45)	1 x dedicated service LAN port for iRMC S2 (10/100 Mbit/s) Service LAN traffic can be switched to shared onbord Gbit LAN port

Onboard or integrated Controller

RAID Controller	Integrated RAID 0/1 or RAID 5/6 controller for SAS base units (occupies one PCIe slot). See under Components RAID controller
SATA Controller	Intel® ICH9R, 2 ports used for accessible drives 4 port for internal SATA HDDs with RAID 0, 1, 10 for Windows and Linux; RAID 5 iButton optional
LAN Controller	BCM 5755, 10/100/1000 Mbit/s Ethernet, PXE-Boot via LAN from PXE server, iSCSI Boot (also diskless) via onboard LAN

Onboard or integrated Controller

Remote Management Controller	Integrated Remote Management Controller (iRMC S2, 32 MB attached memory incl. graphics controller), IPMI 2.0 compatible
Trusted Platform Module (TPM)	Infineon / 1.2 (option)

Slots

PCI-Express x8	2 x short
PCI-Express x4 (mech. x8)	1 x short
PCI slots	3 x PCI 32/33 MHz, 2x long, 5V
Slot Notes	in SAS configuration 1x PCI-Express occupied by modular RAID controller

Drive bays

Accessible drive bays	3 x 5.25/1.6-inch 1 x 3.5/1-inch for FDD
Notes accessible drives	all possible options described in relevant system configurator

Drive bays (Base unit specific)

Hard disk bays	4 x 3.5-inch non hot-plug SATA	4 x 3.5-inch hot-plug SAS/ SATA	8 x 2.5-inch hot-plug SAS	8 x 2.5-inch hot-plug SAS	4 x 3.5-inch hot-plug SAS/ SATA	4 x 3.5-inch hot-plug SAS/ SATA	8 x 2.5-inch hot-plug SAS	8 x 2.5-inch hot-plug SAS
Optional hard disk bays	2 x 3.5-inch hot-plug HDD box	2 x 3.5-inch hot-plug HDD box	-	-	2 x 3.5-inch hot-plug HDD box	2 x 3.5-inch hot-plug HDD box	-	-

Operating panel

Operating buttons	On/off switch NMI button Reset button
Status LEDs	System status (amber / yellow) Identification (blue) Hard disks access (green) Power (amber / green) At system rear side: System status (amber / yellow) Identification (blue) LAN connection (green) LAN speed (green / yellow)
Service display	Optional: ServerView Local Service Panel (LSP)

BIOS

BIOS features	ROM based setup utility Recovery BIOS BIOS settings save and restore Local BIOS update from USB device Online update tools for main Windows and Linux versions Local and remote update via ServerView Update Manager SMBIOS V2.4 Remote PXE boot support Remote iSCSI boot support

Supported operating systems

Supported operating systems	Microsoft® Windows Server® 2008 Microsoft® Windows Server® 2003 Novell SUSE Linux Enterprise Server Red Hat Enterprise Linux Note: Support of other Linux derivatives on demand
Operating system release link	http://ts.fujitsu.com/software http://docs.ts.fujitsu.com/dl.aspx?id=a9e600b9-e4cb-4f48-aa41-632f69058421

Server Management

Standard	ServerView Deployment Manager (fully functional 30-day trial version) ServerView Integration solutions for Microsoft SMS, MOM, SCOM, SCCM and Altiris Deployment Solution Online update packages for BIOS, firmware drivers and ServerView Agents ServerView Suite: SV Installation Manager SV Operation Mananger SV RAID Manager SV Update Manager SV Agents
Option	ServerView Remote Management iRMC S2 Advanced Pack
Server Management Notes	Regarding Operating System dependencies and product details for ServerView Suite Software Products see dedicated Product Data sheets.

Dimensions / Weight

Dimension notes	Width 305 mm with tilt protection
Weight	up to 28 kg
Weight notes	Weight may vary depending on actual configuration
Rack integration kit	Rack integration kit as option

Dimensions / Weight (Base unit specific)

Floor-stand (W x D x H)	205 x 605 x 444 mm	205 x 605 x 444 mm	205 x 605 x 444 mm	205 x 605 x 444 mm	-	-	-	-
Rack (W x D x H)	-	-	-	-	482 x 642 x 221 mm	482 x 642 x 221 mm	482 x 642 x 221 mm	482 x 642 x 221 mm
Mounting Depth Rack	-	-	-	-	607 mm	607 mm	607 mm	607 mm
Height Unit Rack					5 U	5 U	5 U	5 U

Environmental

Noise emission	Measured according to ISO 7779 and declared according to ISO 9296
Sound pressure (LpAm)	26 dB(A) (idle) / 35 dB(A) (operating)
Sound power (LWAd; 1B = 10dB)	4.4 B (idle) / 5.3 B (operating)
Noise notes / description	only with standard fans and standard PSU
Operating ambient temperature	10 - 35°C
Operating relative humidity	10 - 85 % (non condensing)

Electrical values

Power supply configuration	Base unit specific: 1x standard power supply or 2x hot-plug power supply (1 + 1 redundancy)
Rated voltage range	100 - 240 V
Rated frequency range	50 - 60 Hz
Rated current max.	6 A / 3 A (100 V / 240 V)
Rated current in basic configuration	1.9 A / 0.8 A (100 V / 240 V)
Active Power max. (per system unit)	232 W
Apparent power max. (per system unit)	263 VA
Heat emission	835.2 kJ/h (791.8 BTU)

Electrical values (Base unit specific)

Power supply configuration	2	1	2	1	2	1	2	1
Standard power supply output		350 W		350 W		350 W		350 W
Hot-plug power supply output	400 W	-	400 W	-	400 W	-	400 W	-
Hot-plug power supply redundancy	Yes	No	Yes	No	Yes	No	Yes	No

Compliance

Germany	GS

Compliance

Europe	CE
USA/Canada	CSAc/us ULc/us FCC Class A
Global	CB RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronical equipment)
Japan	VCCI
Australia&New Zealand	C-Tick
Taiwan	BSMI
Compliance notes	There is general compliance with the safety requirements of all European countries and North America. National approvals required in order to satisfy statutory regulations or for other reasons can be applied for on request.
Compliance link	https://sp.ts.fujitsu.com/sites/certificates/default.aspx

Components

Hard disk drives	SATA, 3 Gb/s, 1000 GB, 7200 rpm, hot plug, 3.5-inch
	SATA, 3 Gb/s, 750 GB, 7200 rpm, hot plug, 3.5-inch
	SATA, 3 Gb/s, 500 GB, 7200 rpm, hot plug, 3.5-inch
	SATA, 3 Gb/s, 250 GB, 7200 rpm, hot plug, 3.5-inch
	SATA, 3 Gb/s, 160 GB, 7200 rpm, hot plug, 3.5-inch
	SAS, 3 Gb/s, 450 GB, 15000 rpm, hot plug, 3.5-inch
	SAS, 3 Gb/s, 300 GB, 15000 rpm, hot plug, 3.5-inch
	SAS, 3 Gb/s, 146 GB, 15000 rpm, hot plug, 3.5-inch
	SAS, 3 Gb/s, 146 GB, 10000 rpm, hot-plug, 2.5-inch
	SAS, 3 Gb/s, 73 GB, 15000 rpm, hot plug, 3.5-inch
	SAS, 3 Gb/s, 73 GB, 10000 rpm, hot-plug, 2.5-inch
Hard disk notes	Mix of 3.5-inch SAS and SATA HDD requires separate HDD cages and RAID sets One Gigabyte equals one billion bytes, when referring to hard disk drive capacity. Accessible capacity may vary, also depending on used software
Tape Drives	DDS Gen5, 36 GB , 3 MB/s, half height, SCSI U2W
	DDS Gen5, 36 GB , 3 MB/s, half height, USB 2.0
	DDS Gen5 OBDR, 36 GB , 3 MB/s, half height, SCSI U2W
	DDS Gen6, 80 GB , 6 MB/s, half height, SCSI U160
	DDS Gen6, 80 GB , 6 MB/s, half height, USB 2.0
	LTO2HH Ultrium LC, 200 GB , 24 MB/s, half height, SCSI U160
	LTO3HH Ultrium, 400 GB , 60 MB/s, half height, SCSI U320
	LTO4HH Ultrium, 800 GB , 120 MB/s, half height, SAS 3Gb/s
	RDX Drive, 80 GB, 160 GB, 320 GB , 25 MB/s, half height, USB 2.0
Optical drives	Blu-ray combo drive, (2x BD-ROM; 8x DVD; 24x CD), slimline, SATA I
	Blu-ray combo drive, (6x BD-ROM; 16x DVD; 40x CD), half height, SATA I
	CD-RW / DVD Combo, (8x DVD; 24x CD/CD-R, 16x CD-RW), slimline, SATA I
	DVD-ROM, (16xDVD; 48xCD), half height, SATA I
	DVD Super Multi, (16xDVD, 8xDVD+RW 6xDVD-RW, 12xDVD-RAM; 48xCD, 32xCD-RW), half height, SATA I
	DVD Super Multi, (8x DVD/DVD+RW, 6x DVD-RW, 5x DVD-RAM; 24x CD/CD-R, 16x CD-RW), slimline, SATA I
SCSI / SAS Controller	SCSI Ctrl 320 MB 1ch int/ext PCIe x1

RAID Controller	RAID 5/6 Ctrl, SAS/SATA 3 Gb, LSI MegaRAID SAS8880E, 8 ports ext. RAID level: 0, 1, 10, 5, 50, 6, 60, 512 MB Cache, no BBU support (based on LSI 1078)
	RAID 5/6 Ctrl, SAS/SATA 3 Gb, LSI MegaRAID SAS8880E, 8 ports ext. RAID level: 0, 1, 10, 5, 50, 6, 60, 512 MB Cache, inclusive BBU (based on LSI 1078)
	Integrated SW RAID 5, SATA II 3 Gb, LSI Embedded MegaSR RAID5, RAID level: 0, 1, 10, no BBU support
	Integrated RAID 5/6 Ctrl, SAS/SATA 3 Gb, 8 ports int. RAID level: 0, 1, 10, 5, 50, 6, 60, 512 MB Cache, optional BBU (based on LSI 1078)
	Integrated RAID 5/6 Ctrl, SAS/SATA 3 Gb, 8 ports int. RAID level: 0, 1, 10, 5, 50, 6, 60, 256 MB Cache, optional BBU (based on LSI 1078)
	Integrated RAID 0/1 Ctrl, SAS/SATA 3 Gb, 8 ports int. RAID level: 0, 1, 1E, no BBU support (based on LSI 1068e)
	Integrated RAID 0/1 Ctrl, SAS/SATA 3 Gb, 4 port int. RAID level: 0, 1, 1E, no BBU support , for internal SAS tapes (based on LSI 1064e)
LAN Controller	Ethernet Ctrl 1 x 1 Gb Intel® Gigabit CT Desktop Adapter
	Ethernet Ctrl 1 x 1 Gb Intel® PRO/1000 GT Desktop Adapter
	Ethernet Ctrl 1 x 1 Gb Intel® PRO/1000 PF Server Adapter
	Ethernet Ctrl 1 x 1 Gb Intel® PRO/1000 PT Server Adapter
	Ethernet Ctrl 2 x 1 Gb Intel® PRO/1000 PT Dual Port Server Adapter
	Ethernet Ctrl 4 x 1 Gb Intel® PRO/1000 PT Quad Port Server Adapter
Rack infrastructure	Cable Arm 2U for 3rd party racks
	Cable Management for 19-inch DataCenter / PRIMECENTER Racks
	Rackmount kit full extraction (760mm), tool less mounting

Warranty

Standard Warranty	1 year
Service level	On-site Service

Maintenance and Support Services - the perfect extension

Recommended Service	7x24, Onsite Response Time: 4h
Spare Parts availability	5 years
Service Weblink	http://ts.fujitsu.com/Supportservice

Information about environmental care, policies, programs and our Environmental Guideline FSC 03230:
http://ts.fujitsu.com/aboutus
Take back and Recycling information:
http://ts.fujitsu.com/recycling

All rights reserved, including intellectual property rights. Changes to technical data reserved. Delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded.
Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner.
For further information see http://ts.fujitsu.com/terms_of_use.html
Copyright © Fujitsu Technology Solutions March 2009

Published by
Fujitsu Technology Solutions
http://ts.fujitsu.com